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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,241	09/26/2003	Toshiya Asano	00862.023250	8587
5514 7590 08/09/2005 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER ROJAS, BERNARD	
			ART UNIT 2832	PAPER NUMBER

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/670,241	Applicant(s) ASANO ET AL.	
	Examiner Bernard Rojas	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-8 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11042003</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: ____ |
|--|--|

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Embodiment 1 in the reply filed on 05/20/2005 is acknowledged. The traversal is on the ground(s) that the embodiments are related and do not require further search. This is not found persuasive because the different embodiments would require further search for the various features of each embodiment.

The requirement is still deemed proper and is therefore made FINAL.

Claims 9-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 05/20/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Asano et al. [US 6,654,098].

Claim 1, Asano et al. discloses an alignment apparatus comprising: a structure to be aligned [8]; a moving member which moves to align said structure [13, 17]; and an electromagnetic mechanism [23, 24, 25, 26] which electromagnetically applies a force between said structure and said moving member to allow said structure to move along with movement of said moving member while forming a gap between said structure and said moving member [figures 1-43], said electromagnetic mechanism having a first electromagnetic actuator which is feedback-controlled on the basis of a deviation between a target position and an actual position of said structure, and a second electromagnetic actuator which is feedforward-controlled on the basis of the target position of said structure, and each of the first and second electromagnetic actuators having a pair of electromagnets which are so arranged as to generate forces in opposite directions on the same line [figure 4, col. 8 line 41 to col. 9 line 43], and a pair of targets [29, 30] which are arranged to face the pair of electromagnets, wherein an attractive force by a magnetic flux generated by the electromagnet acts on the target between the electromagnet and the target.

Claim 4, Asano et al. discloses the apparatus according to claim 1, wherein in feedforward control, the target position of said structure is converted into a command value for a magnetic flux to be generated by the electromagnet of the second electromagnetic actuator, and the electromagnet is controlled on the basis of a difference between the command value and a value of a magnetic flux generated by the electromagnet [figure 4, col. 8 line 41 to col. 9 line 43].

Claim 6, Asano et al. discloses the apparatus according to claim 1, wherein the apparatus further comprises two first electromagnetic actuators, and the second electromagnetic actuator is interposed between the two first electromagnetic actuators [figure 2].

Claim 7, Asano et al. the apparatus according to claim 1, wherein a line of force generated by the second electromagnetic actuator [23, 25] coincides with a line passing through a barycenter of said structure [figure 2].

Claim 8, Asano et al. discloses the apparatus according to claim 1, wherein a gap between the first electromagnetic actuator and the target is not less than a gap between the second electromagnetic actuator and the target [looking as both x direction coils 24 and targets 26].

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano et al. [US 6,654,098].

Claim 2, Asano et al. discloses the claimed invention except for at least one target is so arranged as to be shared between at least two electromagnets. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide one large target [26] for the x-direction actuator instead of two separate smaller targets [figure 2]. Since applicant has not disclosed that using one target instead of two targets solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with that arrangement disclosed in figure 2.

Claim 5, Asano et al. discloses driving both electromagnets [x and y directions] at the same time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to operate one of the pair of electromagnets, while the other electromagnet is not driven in order to minimize the amount of power being used at any one given time.

Allowable Subject Matter

Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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